

Building on the work accomplished in the first preparatory year, the second phase will focus on selected key environmental and health issues identified at the three study sites: water and sanitation, malnutrition, and safe use of pesticides and chemical fertilisers in agricultural practice. The project will last for three years from February 2008 to February 2011.

In addition to the site specific research objectives, the general objectives include

- generating knowledge on how land use change, especially sedentarisation of nomads and agricultural intensification and modernisation, affects ecosystem services and human health, and how to improve health and environmental sustainability in the eastern Himalayas using an ecohealth approach; and
- promoting the application of the research findings and ecohealth approaches in the Himalayas through policy advocacy, dissemination of research findings, and capacity building of project site teams and other related partners.

## Land Use Change and Human Health in the Eastern Himalayas: An EcoHealth Approach (Phase 2)

### Project partners

The project is a component in a larger IDRC EcoHealth Programme initiative. It is coordinated by ICIMOD and funded by IDRC, Canada. Most of the field activities are carried out by local institutions at the three sites: the partners from China include the Tibetan Academy of Agriculture and Animal Husbandry Sciences (TAAAS); the Tibetan Traditional Medicine Institute; Tibetan University; Kunming Institute of Botany (KIB), the Chinese Academy of Sciences; and Kunming Medical College; the partners from Nepal include Local Initiatives for Biodiversity, Research and Development (Li-Bird); and the Institute of Medicine, Tribhuvan University.



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## Rationale and approach

Human health is crucial for poverty reduction and sustainable development. The importance of health for human development is reflected in the Millennium Development Goals (MDGs), three of which are direct health indicators and four closely linked to human health in one way or another. Human health is intimately connected to the state of the environment in which people live and work through a network of interacting ecological, geographic, economic, social and other factors. While 'old' diseases such as TB and malaria are still prevalent in many parts of the world, new diseases such as AIDS, SARS and Avian flu keep emerging. The majority of the reemerging and newly emerging diseases are closely associated with environmental change, particularly the degradation of environmental and ecosystem services, which are often the result of human activities. Traditional way of managing human health that is dominated by medicine and public health is no longer sufficient to maintain and improve human health in this rapidly changing world. A new integrated approach to maintaining and improving human health is needed in which medicine and public health remain crucial, but other disciplines and sectors such as ecology, veterinary medicine, agriculture, and industry also have an important role to play. This integrated approach encourages people to break through the traditional boundaries of disciplines and sectors and requires them to work in a trans-disciplinary manner.

## Vision

To reduce the vulnerability of communities to human health issues caused by environmental change, including land use change, in the Himalayas



The ecosystem approach to human health (EcoHealth) developed by IDRC provides a good example of this type of integrated approach. It places human health in a broad framework of ecological and socioeconomic context

and recognises the physical, economic and social factors equally. The three methodological pillars of this approach are multi-stakeholder engagement, participatory processes for social learning and negotiating solutions, and social equity, particularly gender equity.



## The ICIMOD EcoHealth Project

Mountain regions have their own special set of circumstances in terms of environmental change effects on human health. In recent decades, land use and livelihood changes such as sedentarisation of nomads, reduction of shifting cultivation, agricultural modernisation and intensification, migration and population dynamics, and lifestyle and dietary changes have become prevalent

in the eastern Himalayan region.

These changes, driven by policies, market forces, and climate change, can have significant impacts on human health.

The International Centre for Integrated Mountain Development (ICIMOD) is a leading organisation committed to sustainable mountain development especially in the Himalayan region.

ICIMOD initiated an ecohealth project

in 2006 with the aim of addressing the threats posed by land use change to the development of secure, prosperous, and especially healthy, livelihoods for mountain communities in the Himalayas. The project has three study sites: one in the Tibet Autonomous Region of China, one in Yunnan Province of China, and mid-hill shifting cultivation areas in western Nepal. The project has been developed under the framework of the International Development Research Centre (IDRC) EcoHealth Programme.

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